

-continued

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1. A CODON-OPTIMIZED CRY1DA NUCLEIC ACID MOLECULE characterized in that it comprises a nucleic acid sequence having at least 70% similarity with the sequence of SEQ ID NO: 1.

2. The MOLECULE of claim 1, characterized in that it comprises a nucleic acid sequence having at least 90% similarity with the sequence of SEQ ID NO: 1.

3. The MOLECULE of claim 2, characterized in that the sequence is defined as SEQ ID NO: 1.

4. A NUCLEIC ACID CONSTRUCT, characterized in that it comprises the nucleic acid molecule, as defined in claim 1.

5. The CONSTRUCT of claim 4, characterized in that it further comprises a promoter sequence operably linked to said nucleic acid molecule.

6. The CONSTRUCT of claim 5, characterized in that the promoter sequence is maize ubiquitin gene (ubi) promoter sequence.

7. The CONSTRUCT of claim 4, characterized in that it further comprises a 3' UTR terminator sequence.

8. The CONSTRUCT of claim 7, characterized in that the 3' UTR terminator sequence is nopaline synthase (nos) gene terminator sequence.

9. The CONSTRUCT of claim 4, characterized in that it further comprises a selection gene, operably linked to at least one promoter sequence and at least one terminator sequence.

10. The CONSTRUCT of claim 9, characterized in that the promoter sequence is duplicated CaMV 35S gene promoter sequence from cauliflower mosaic virus and the

terminator sequence is Tvsp gene terminator sequence that codes for soybean vegetative storage protein.

11. The CONSTRUCT of claim 4, characterized in that it further comprises other regulatory sequences.

12. The CONSTRUCT of claim 4, characterized in that it further comprises the nucleic acid sequence of SEQ ID NO: 10.

13. A VECTOR, characterized in that it comprises the nucleic acid molecule, as defined in claim 1.

14. A HOST CELL, characterized in that it comprises the nucleic acid molecule, as defined in claim 1.

15. A PLANT CELL, characterized in that it comprises the nucleic acid molecule, as defined in claim 1.

16. A TRANSGENIC PLANT, characterized in that it comprises the nucleic acid molecule, as defined in claim 1.

17. A CELL TRANSFORMATION METHOD, characterized in that it comprises introducing into said cell the nucleic acid molecule, as defined in claim 1.

18. The METHOD of claim 17, characterized in that the nucleic acid molecule integrates into the cell genome.

19. A METHOD OF PRODUCING A TRANSGENIC PLANT, characterized in that it comprises transforming the plant cell with the nucleic acid molecule, as defined in claim 1.

20. The METHOD of claim 19, characterized in that it further comprises selecting the plant cell transformed with the nucleic acid molecule, as defined in claim 1.

21. The METHOD claim 19, characterized in that it further comprises regenerating the transgenic plant from said plant cell.